

FIG. 1  
PRIOR ART

1	c:\collections
2	notes.txt
3	myletter.doc
4	c-myhomepage
5	
6	s
7	homepage.html
8	myphoto.jpg

FIG. 2

1	c:\collections
2	notes.txt
3	myletter.doc
4	c-myhomepage
5	cspec
6	s
7	homepage.html
8	myphoto.jpg

100

FIG. 3

1	collection	c-myhomepage
2	coll-type	cf-web-page
3	coll-desc	A sample homepage collection
4	end-collection	

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FIG. 4

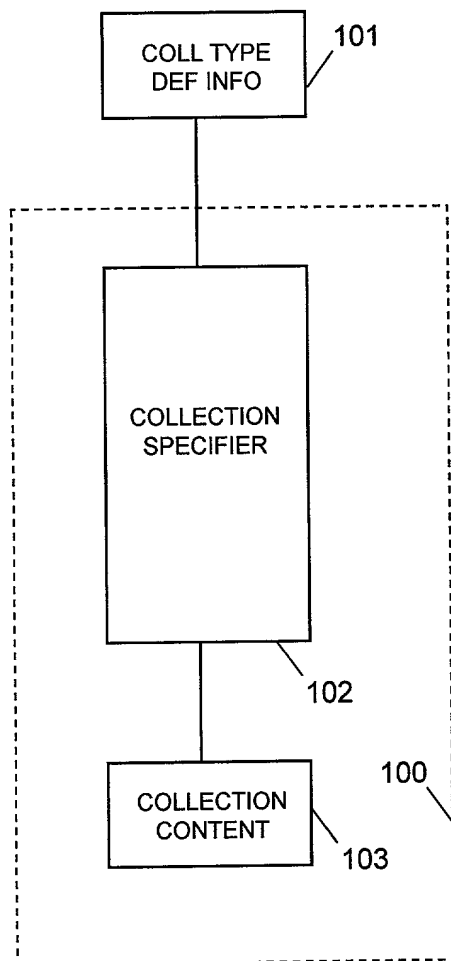


FIG. 5

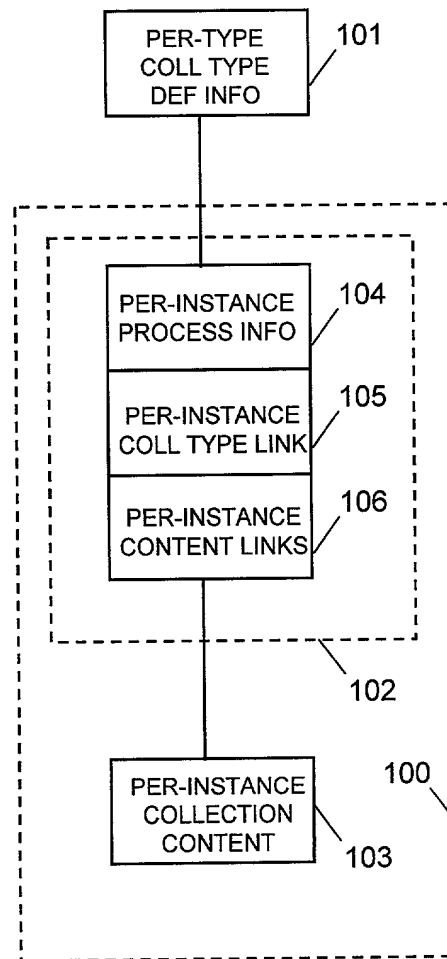


FIG. 6

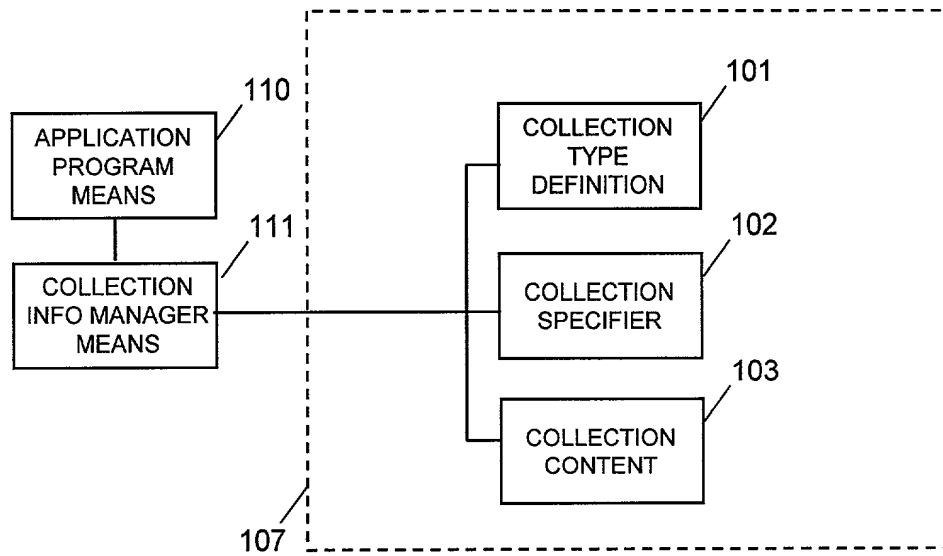


FIG. 7

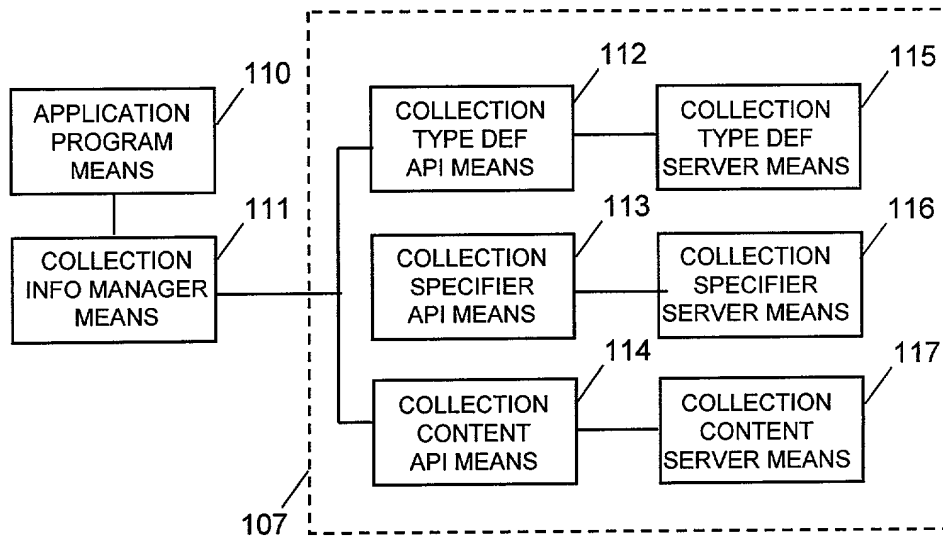


FIG. 8

```

1  /* collection data structure */
2  collection-info {

3      + specifier_info
4          + coll-type-indicator
5          + other specifier information ...

6      + content_info
7          + content_location_info ...
8          + content_members ...
9          + other content information...

10     + other collection structure information...
11 }

```

FIG. 9

```

1  /* collection type definition data structure */
2  collection-type-definition-info {

3      + coll-type-name
4      + collection internal structure info ...
5      + collection content location info ...
6      + collection content type recognition info ...

7      + other collection type definition information...
8  }

```

FIG. 10

<u>KEY</u>	<u>VALUE</u>
1	/* collection type internal structure definitions */
2	dir_source_files .\s
3	dir_doc_files .\doc
4	/* content location definitions (per-type content links) */
5	content_subtree_http http://host.com/some/dir/name
6	content_subtree_ftp ftp://host.com/some/dir/name
7	content_subtree_nfs /some/local/directory/name
8	/* content type recognition definitions */
9	content_policy subtree_below_cspec_file
10	content_file_type .c file_cpp
11	content_file_type .c file_c
12	content_file_type .h file_c_include
13	content_file_type .doc file_ms_word
14	content_file_type .html file_html
15	content_file_type .xls file_ms_excel
16	/* collection processing definitions */
17	compile_c_files yes
18	compiler_windows vc++
19	compiler_unix gcc
20	build platforms Win98, Win2000, linux
21	process files compile link
22	link libraries stdio math sock
23	/* results dispatching definitions */
24	results_ftp_host ftp.output.com
25	results_ftp_dir c:\ftphome\collection\results

FIG. 11

- 1 /\* Obtain and load collection specifier instance information \*/
- 2 Identify collection specifier text file
- 3 Open, read, and parse specifier information
- 4 Load specifier information into data structure
- 5 Close collection specifier text file.
  
- 6 /\* Obtain and load collection type definition information \*/
- 7 Obtain collection type indicator from spec info
- 8 Use indicator to identify collection type definition file
- 9 Open, read, and parse collection type definition information
- 10 Load collection type definition into data structure
- 11 Close collection type definition text file.
  
- 12 /\* Obtain and load collection content attribute information \*/
- 13 Obtain content info from type definition
- 14 Use content attribute info to identify content files
- 15 Load content info into data structure
  
- 16 Make data structures containing collection instance,  
collection type, and collection content attribute info  
available to the application program for processing the collection.

FIG. 12

<u>COLLECTION CATEGORY</u>	<u>HAS TYPE</u>	<u>HAS CONTENT</u>	<u>DESCRIPTION</u>
1	1	1	(most common) normal coll
2	1	0	(most common) normal cspec only
3	0	1	(rare) untyped temporary collection
4	0	0	(rare) untyped cspec only (Common as an initial starting point for programs that generate collections from nothing.)